

CLAIMS

In the claims:

1. (Canceled)
2. (Canceled)
3. (Canceled)
4. (Canceled)
5. (Canceled)
6. (Canceled)

Fig 12
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7. (New) A method for producing a rim hole through a first and second planar workpieces, comprising:

forming an oblong penetration opening through the first and second planar workpieces by translating an oblong punch in a first direction to a first position;

providing an oblong rim hole;

translating the oblong punch, in the first direction, from the first position to a second position relative to a fixed matrix;

forming, against a working edge of the fixed matrix, an oblong break away portion in the second planar workpiece;

forming an oblong rim using the first planar workpiece such that the oblong rim is formed adjacent to an inner surface of the matrix; and

[forming the oblong rim into a single layer flange engageable with a bottom surface of the second planar workpiece.

8. (New) The method of claim 7, wherein the first and second planar workpieces are metal.
9. (New) The method of claim 7, wherein the flange is formed using an oblong flange punch.
10. (New) The method of claim 9, wherein the flange punch engages the flange from a second direction that is linearly opposite the first direction.
11. (New) The method of claim 7, wherein the oblong punch has a first working surface to form the penetration opening and a second working surface to form the oblong rim adjacent to the inner surface of the matrix.
12. (New) A method of producing a rim hole through a plurality of planar workpieces, comprising:
providing a round penetration hole through the plurality of planar workpieces;
punching the rim hole using a round punch in cooperation with a corresponding matrix to provide an annular break away and an annular rim; and
[forming a flange from a single planar workpiece, the flange formed to engage a bottom surface of the plurality of planar workpieces.
13. (New) The method of claim 12, wherein the round penetration hole is formed using a circular drill.

14. (New) The method of claim 12, wherein round penetration hole is formed using a punch having a transition surface and a body surface.
15. (New) The method of claim 14, wherein the transition surface engages at least one of the plurality of planar workpieces to promote the separation of the annular break away and form the annular rim adjacent to the body surface.
16. (New) The method of claim 12, wherein the annular break away is formed against a working surface of the matrix and the annular rim is formed adjacent to an inner surface of the matrix.
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17. (New) A method for producing an oblong rim hole, comprising:
providing an oblong penetration opening through a first and a second workpiece;
forming the oblong rim hole using an oblong punch in cooperation with a corresponding matrix to provide an oblong break away and ^asingle layer oblong rim; and
bending the single layer oblong rim to form a flange engageable with a bottom surface of the second workpiece.
18. (New) The method of claim 17, wherein the oblong punch engages the first workpiece to promote the separation of the oblong break away from the second workpiece.
19. (New) The method of claim 17, wherein the oblong punch engages the first workpiece to form the oblong rim adjacent to an inner surface of the matrix.

20. (New) The method of claim 17, wherein the first and the second workpieces are planar metal sheets.

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21. (New) The method of claim 17, wherein the flange is formed using an oblong flange punch.
